

# Effect of Implementing Stress Management Techniques on Head Nurses' Job Performance

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**Abstract:** The healthcare work environment is a source of work overload and stress. Stress management is critical for creating a healthy work environment for nursing practice, which represents a priority for improving head nurse performance and promoting patient care quality and safety. Aim: to study the effects of implementing stress management techniques on head nurses' job performance. A quasi-experimental research design was utilized. The study was conducted at all the departments of General Belbese hospital. Sample: all available head nurses (n = 40) during the data collection period. Two tools were used: the stress management techniques assessment questionnaire and the head nurse performance evaluation scale. Results: The total stress management techniques skills improved statistically significantly after and during the follow-up intervention compared to the pre-intervention evaluation. In addition, there was a statistically significant positive correlation between the total stress management techniques skills score and the overall performance score of the head nurses during different phases of the training programme (P <0.001). Conclusion: The implementation of stress management techniques was associated with significant improvement and a positive impact on the head nurses' skills in stress management and job performance. Recommendation: Conduct ongoing and regular in-service educational programmes about stress management techniques, as well as other improvement activities like seminars, conferences, and workshops, to help head nurses improve their performance. Also, incorporate the concept of stress management into the nursing faculty and school curriculum.

**Keywords:** Head Nurses, Job Performance, stress, Stress Management, Stress Management Techniques.

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## I. INTRODUCTION

Nowadays, stress is a major concern in the nursing profession with work overload, nurse shortages, role conflict, work/time pressure, job overload, role ambiguity, inadequate social support, inadequate leadership, organizational constraints, and new technology that lead to high turnover rates{1}. In addition Job stress is one of the most important workplace health risks for nurses and head nurses{2}. These will increase the level of head nurses responsibility and accountability and demands for new knowledge and skills which may negatively effect on job performance{3,4}.

Stress is a significant contributing factor to organizational inefficiency, high staff turnover, absenteeism because of occupational stress, increased costs of health care, and decreased job satisfaction {5}. So creating a healthy work environment free of stress for nursing practice represents a priority for achieving quality of healthcare. Thus considerable effort is needed toward stress management {6,7}. Stress management entails identifying and analysing stress-related issues, as well as using a variety of therapeutic tools to change the source of stress or the stress experience. These therapeutic tools are used as part of a larger, more conceptually meaningful framework {8}. Also, Stress management is a collection of health promotion behaviours that functions to protect and defend anyone from the harmful physiological and psychological effects of stress {9}. Effective stress management measures, such as problem-solving ability, time management, and relaxation techniques, are critical for improving the work environment, reducing stress, and improving job performance among head nurses {10,11}.

One of the most significant changes in nursing management over the last decade has been the development of problem solving. Problem solving is described as a response offered in a critical and challenging circumstance that necessitates critical thinking to solve. A person's capacity to relate constructively is determined by their problem-solving skills. {12}. Problem solving is widely recognized as an intellectual activity that needs introspection and creative thinking. It is well established that problem-solving education improves skills in coping with life's challenges and reduces stress {13,14}.

One strategy to reduce stress and improve productivity and job performance is to manage time effectively. The current state of health-care organizations that are attempting to accomplish more with less resources. It's becoming more necessary for head nurses to use time management tools effectively in order to achieve personal and professional goals. Head nurses can spend more time on priority concerns if they manage their time efficiently {15}. Good time management enables head nurses to work smarter – not harder. Failure to manage time reduces productivity and increases stress. The management of time and stress have a close relationship {16}. The process of organizing and planning how to divide time between specific activities is known as time management. In addition, it involves allocating time to activities that will help achieve goals {17}.

It might be difficult to establish a state of relaxation under a stressful situation. However, a number of strategies have been developed to aid in the attainment of a state of relaxation, several of which have been proven effective in psychological research: diaphragmatic breathing, progressive muscle relaxation, guided imagery, and meditation activities {18}. Relaxation techniques are described as therapeutic exercises that help people relax by reducing tension, anxiety, and stress, all of which have physical and psychological impacts on the human body. Relaxation, or easing of physical or mental stress, is often thought to be the antidote to stress {19}.

Diaphragmatic breathing, also known as deep abdominal breathing, is a breathing method that is used to slow down and regulate oxygen intake. It is inhaling slowly and deeply with the goal of expanding and contracting the diaphragm, a muscle that separates the chest and abdominal compartments {20}. Progressive muscle relaxation is a set of procedures that entails repeatedly tensing and relaxing different muscle groups throughout the body. Deep breathing is frequently combined with muscle tensing and relaxing, in which an individual performs a deep breathing exercise while concurrently tensing and relaxing muscle groups. In addition, guided imagery, aromatherapy, and music therapy are all psychological relaxation response strategies that help to balance stress-related psychological impacts {19}.

Stress related to work environment has been a challenge for head nurses. It occurs as a result of the continuous demand to do the best in an environment that is full of sophisticated technology. Head nurses are required to deal with the sophisticated technology as well as the ethical and practical problems of patient care {21}. A head nurse is the one who assumes responsibility for managing the human and material resources of a nursing unit and takes lead in developing the staff to provide quality of patient care and a good conductive environment to help staff growth and satisfaction. Head nurse have very important role in achieving organizational objectives and spends the whole working hours in performing different administrative functions as well as participating in direct and indirect patient care activities {22}.

Stress reduces head nurses' concentration and initiative, leading to depression, negative thinking, and a lack of attention at work, as well as incorrect or delayed decision-making. This will have an impact not just on their health and work productivity, but also on their subordinates' discipline and efficiency. Furthermore, generating unreasonable delay or errors in patient care, as well as dissatisfaction among patients and their relatives with the hospital's service. It also has direct effects on the organization, such as decreased job performance, withdrawal, and unfavorable attitude changes {23}.

A professional head nurse's performance was defined as the official demonstration of a skills, knowledge, and attitude. Performance-related behaviours are linked to job duties that must be completed in order to meet a job's objectives. Setting performance goals, designing strategies with head nurses to achieve and sustain improvement, evaluating head nurses' progress toward goals, offering continual feedback and coaching by supervisors and maybe peers, and measuring individual performance are all parts of performance management {24}. Job performance is a critical dimension in health care sector, especially the nursing sector, in which the performance of the head nurses is very critical because of managing patient's health care. the nature of work, the degree of stress and the working hours that the head nurses capital of health care industry have a great effect on their job performance{25}. Job performance among head nurses is the set of head nurses' behaviors that can be monitored, measured, and assessed regarding the achievement in the head nurse level. Good job performance is a necessary factor in determining an organization achievements {26}.

**International Journal of Novel Research in Healthcare and Nursing**

Vol. 9, Issue 1, pp: (215-227), Month: January - April 2022, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

The performance of head nurses is a complimentary component of patient care and managerial abilities, and it is a key predictor of healthcare service quality that clarifies effectiveness and efficiency that contributes to the health organization's goals {27}. Hospitals needs well performing head nurses to meet their goals to bring the products and services they specialized in and lastly to accomplish competitive advantages {28}. As a result, the purpose of this research is to see how stress management techniques affect the job performance of head nurses.

**II. SUBJECT AND METHOD**

***This study aimed to:*** study the effect of implementing stress management techniques on head nurses' job performance

**Research hypothesis :**

\*Implementing stress management techniques will improve head nurses' job performance.

**Methods:****Research design**

This study was conducted using a quasi-experimental research design.

**Settings**

This study was conducted in all departments of General Belbese Hospital, which provides a wide range of health services at Al Sharkia Governance, affiliated with the Egyptian ministry of health and population. It provides multiple inpatient and outpatient services, such as Medical, Surgical, Cardiopulmonary, Gynecological, etc. It consisted of six buildings with a total bed capacity of 228 beds.

**Subjects:**

The study sample was included all available head nurses (n=40) assigned to work in General Belbese Hospital during the data collection period.

**Tools of Data Collection:**

**The first tool is a stress management techniques assessment questionnaire** that was developed by the researcher based on a literature review of {29,30,31,32}. It consists of two main parts:

**Part I: Personal Characteristics of Head Nurses** (age, gender, marital status, education level, years of experience, years of experience as a head nurse).

**Part II: Stress management techniques:** to evaluate the stress management techniques skills among head nurses. It consists of three main dimensions:

1. Problem solving skills: consists of (16) item
2. Time management skills: consists of (42) item
3. Relaxation techniques: consists of (30) item divided into three subscale
  - Deep breathing exercise skills: contain (4) item
  - Progressive muscle relaxation exercise skills: contain (21) item
  - Imagery exercise skills: contains (5) items

Each statement response was scored on a five-point Likert scale (1–5), ranging from not at all (1) to very often (5).

**Scoring system:**

Scoring system based on albertic cut of point divided into three categories, low level of head nurses skills related to stress management techniques (< 50%), moderate level of head nurses skills related to stress management techniques from (50-75%) and high level of head nurses skills related to stress management techniques (> 75%)

**Tool II: Head Nurse Performance Evaluation Scale:** It was developed by {33,34}. to evaluate head nurse’s job performance, it consists of two main dimensions: expectation of tasks it consists of (35) item and attitude consists of (5) items. Each statement response was measured as follow:

D	C	B	A
Incomplete Task with deviation from standard	Task Almost completed with mild deviation from Standard	Tasks Almost Completed precise compliance to standards	Task Always completed with precise compliance to standards

the correspondent score for each item according to D to A evaluation will range from 1.2 for minimum weigh score and 4 for maximum weigh score, then count scores for total. The weigh score for each item was given based on the importance and the criticality of each item.

**Scoring system:**

Scoring system for Level of head nurse’s job performance according to (*Dr Erfan and Bagedo general hospital, 2017*) was classified as follow:

- Outstanding performance > 95 %
- Excellent performance 90-95 %
- Good performance 80% - < 90%
- Need improvement 70% - <80%
- Poor performance < 70%

**Data collection:**

The study was conducted through the following three phases. All of this phases are approximately 10 months began from September 2020 to the end of June 2021.

**First phase:**

The period before the intervention (pre-program) phase that lasted around 2 months from start to finish ( September 2020 to the end of October 2020). During this time all head nurses was observed and interviewed for 6 working days per week at morning shift to assess their stress management skills using tool (1) which took around 20 – 30 minutes to be finished and to evaluate their level of performance using tool (2) which took around (20 – 30) minutes to be finished. This pre study assessment and evaluation was done to give a baseline of information about head nurses stress management skills and their performance level to compare to the post and follow up program. In addition, a time table, teaching session, media to be included, and hand out were produced.

**Second phase :**

The programme related to stress management techniques was designed and applied to all head nurses by the researcher based on the results of the previous assessment, data from tool (1), and literature review. The program's timetable runs from the beginning of November 2020 to the end of February 2021. As the data was collected during the global COVID-19 pandemic, head nurses were divided into four groups, each with ten head nurses. So the number of people in each group was kept small by taking all precautions to prevent the spread of infection. The training programme lasted fourteen hours and was divided into the following: Each group has seven sessions, each lasting two (2) hours and taking place six (6) days per week. The researcher implemented the programme by utilizing accessible assets and, for each session, appropriate content and instructional tactics. Lectures, group discussion, and brainstorming were all used as instructional approaches. The researcher created a handout that was provided to all participants on the first day as educational media. Each group took around one month for the implementation of the programme and the immediate evaluation after the program.

### Third phase:

The follow-up-intervention evaluation phase entails: during this stage, the program's effectiveness was assessed. It was conducted after three months of implementing the programme for each head nurse group using the same tools as before and immediately after the program's implementation. The data collection took place over a period of four months, from the beginning of March 2021 to the end of June 2021.

### Pilot study:

A pilot study was conducted on a sample of four head nurses working in different departments of General Belbese Hospital, who were selected randomly and excluded from the total sample. The pilot sample represents 10% of the total study sample. The pilot study was conducted after the tool was developed but before data collection began in order to assess the tool's clarity and applicability. It helps in identifying potential problems that might be encountered during the period of data collection, and then the necessary modifications are made.

### Ethical considerations:

The research ethics committee of Mansoura University's faculty of nursing gave their approval, and the director and nursing director of General Belbese Hospital gave their official permission to perform the study. The researcher explained the study's purpose and objective to the head nurses who were involved in it, and they gave their informed consent. They were assured that their privacy and anonymity would be protected. Furthermore, research participation is entirely voluntary, and participants have the right to withdraw from the study at any time without penalty. The final product was used in necessary research, as well as future publication and education.

### Statistical design

SPSS for Windows version 26.0 was used for all statistical analyses (SPSS, Chicago, IL). The continuous data were all normally distributed, and the mean standard deviation was determined (SD). Categorical data was expressed using numbers and percentages. One-way analysis of variance (ANOVA) test was used for comparison among more than two for variables with continuous data. When comparing variables with categorical data, the Chi-square test was utilized. The correlation co-efficient test was performed to determine whether there were any correlations between two variables using continuous data. The reliability (internal consistency) test for the questionnaires used in the study was calculate. Statistical significance was set at  $p < 0.05$ .

## III. RESULTS

**Table 1: Personal characteristics of the studied head nurses (n = 40)**

	n (40)	%
<b>Age (years)</b>		
<30	6	15.0
30 – 40	28	70.0
>40	6	15.0
Mean $\pm$ SD	35.8 $\pm$ 6.5	
<b>Marital Status</b>		
Married	34	85.0
Widowed	6	15.0
<b>Education</b>		
Bachelor Degree in nursing	32	80.0
Diploma in nursing	6	15.0
Master	2	5.0
<b>Years of experience in nursing</b>		
< 5	3	7.5
5 – 10	9	22.5
> 10	28	70.0
Mean $\pm$ SD	12.1 $\pm$ 4.4	

<b>Years of experience in as a head nurse</b>		
< 5	13	32.5
5 – 10	7	17.5
> 10	20	50.0
Mean ±SD	10.5 ±3.2	
<b>Have you received any formal management training/ course?</b>		
No	33	82.5
Yes	7	17.5
<b>Do you think that your job is stressful?</b>		
Some	4	10.0
Yes	36	90.0

Table 1. Shows the personal characteristics of the studied head nurses. It revealed that 70% of the head nurses were in the age group range of 30–40 years old, with a mean age of 35.8 ± 6.5 years. The majority of them were married (85%). Most of them had bachelor's degrees in nursing (80%) and more than (70%) had more than 10 years of experience in nursing. Also, half of them had more than 10 years of experience as head nurses (50%). However, only (17.5%) of them received formal management training or courses. The majority of them found their job stressful (90%).

**Table 2: The total score level of the stress management techniques skills used by head nurses pre-intervention, post-intervention and at follow up (n= 40)**

Items		Low		Moderate		High		Chi-Square		
		n	%	n	%	n	%	X <sup>2</sup>	P	
<b>Problem-Solving Technique</b>	Pre-Intervention	32	80.0	8	20.0	0	0.0			
	Post-Intervention	0	0.0	34	85.0	6	15.0			
	At Follow-Up	0	0.0	37	92.5	3	7.5	89.316	<0.001	
<b>Time Management Techniques</b>	Pre-Intervention	40	100.0	0	0.0	0	0.0			
	Post-Intervention	0	0.0	35	87.5	5	12.5			
	At Follow-Up	16	40.0	24	60.0	0	0.0	86.005	<0.001	
<b>Relaxation Techniques</b>										
	Deep Breathing Exercise Skills	Pre-Intervention	40	100.0	0	0.0	0	0.0		
	Post-Intervention	0	0.0	35	87.5	5	12.5			
	At Follow-Up	22	55.0	18	45.0	0	0.0	83.518	<0.001	
Muscle Relaxation Exercise Skills	Pre-Intervention	40	100.0	0	0.0	0	0.0			
	Post-Intervention	35	87.5	5	12.5	0	0.0			
	At Follow-Up	39	97.5	1	2.5	0	0.0	7.368	0.025	
Guided Imagery Exercise Skills	Pre-Intervention	40	100.0	0	0.0	0	0.0			
	Post-Intervention	6	15.0	32	80.0	2	5.0			
	At Follow-Up	4	10.0	36	90.0	0	0.0	87.473	<0.001	
<b>Overall Relaxation Technique Skills</b>	Pre-Intervention	40	100.0	0	0.0	0	0.0			
	Post-Intervention	9	22.5	31	77.5	0	0.0			
	At Follow-Up	28	70.0	12	30.0	0	0.0	53.132	<0.001	
<b>Total Stress Management Techniques</b>	Pre-Intervention	40	100.0	0	0.0	0	0.0			
	Post-Intervention	3	7.5	32	80.0	5	12.5			
	At Follow-Up	27	67.5	13	32.5	0	0.0	74.733	<0.001	

Table 2. Shows the total score level of the stress management techniques skills among head nurses pre-intervention, post-intervention, and at follow up. It illustrates the highly positive statistically significant improvement with total score of all stress management techniques domains (p<0.001) except progressive muscle relaxation technique (p=0.025), the highest percentage of improvement was in problem solving domain (92%) followed by guided imagery (90%) at follow up intervention. The total stress management techniques showed improvement at the three points of evaluation. This change was statistically significant (X<sup>2</sup>=74.733 & P <0.001 respectively).



**Table (3): The total score level of job performance among the head nurses pre-intervention, post-intervention and at follow up (n=40)**

Items		Poor		Need Improvement		Good		Excellent		Outstanding		Chi-Square	
		n	%	n	%	n	%	n	%	n	%	X <sup>2</sup>	P
<b>Total Job Description Element Rating Level</b>	Pre-Intervention	40	100.0	0	0.0	0	0.0	0	0.0	0	0.0		
	Post-Intervention	6	15.0	28	70.0	4	10.0	2	5.0	0	0.0		
	At Follow-Up	34	85.0	1	2.5	5	12.5	0	0.0	0	0.0	85.574	<0.001
<b>Total attitude Level</b>	Pre-Intervention	37	92.5	3	7.5	0	0.0	0	0.0	0	0.0		
	Post-Intervention	1	2.5	5	12.5	13	32.5	15	37.5	6	15.0		
	At Follow-Up	26	65.0	9	22.5	3	7.5	0	0.0	2	5.0	89.575	<0.001
<b>Overall Head Nurses Performance Level</b>	Pre-Intervention	3	7.5	31	77.5	6	15.0	0	0.0	0	0.0		
	Post-Intervention	0	0.0	0	0.0	9	22.5	27	67.5	4	10.0		
	At Follow-Up	0	0.0	4	10.0	30	75.0	4	10.0	2	5.0	122.640	<0.001

Table 3 shows the total score level of job performance among the head nurses pre-intervention, post-intervention, and at follow up. It illustrates the highly positive, statistically significant improvement with the total score of all head nurse job performance domains ( $p < 0.001$ ). The highest percentage of improvement was in the attitude domain, with (37.5%) among head nurses having an excellent level post intervention. However, the job description task domain reported (100%) poor level pre intervention and improved to a need for improvement level with (70%) post intervention. The overall head nurse performance level showed improvement at the three points of evaluation, and it was statistically significant ( $X^2 = 122.640$  &  $P < 0.001$  respectively).

**Table (4): Relationship between the total stress management technique skills level and overall performance level of the head nurses post-intervention n= (40)**

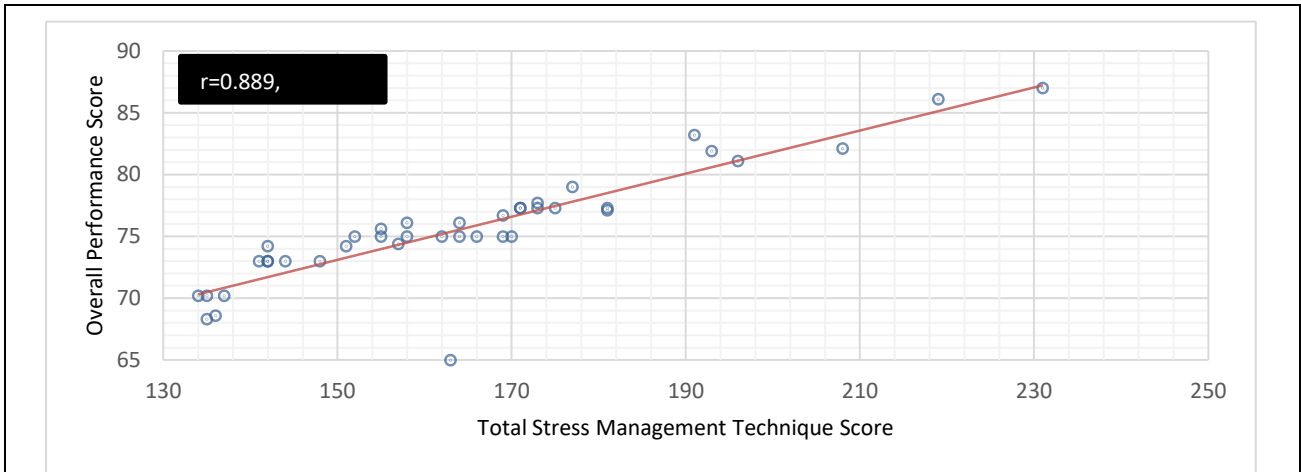
	Total stress management technique level						Chi-Square	
	Low (n=3)		Moderate (n=32)		High (n=5)		X <sup>2</sup>	p
	n	%	n	%	n	%		
Overall performance level								
Good (n=9)	3	100.0	6	18.8	0	0.0		
Excellent (n=27)	0	0.0	26	81.3	1	20.0		
Outstanding (n=4)	0	0.0	0	0.0	4	80.0	41.926	<0.001

Table 4 shows the relationship between the total stress management technique skills level and the overall performance level of the head nurses post-intervention. It revealed that all head nurses (100%) who had a low level of stress management were related to head nurses who had good performance levels post-intervention. There was a statistically significant relation between the total stress management technique level and the overall performance level of the head nurses post-intervention with ( $X^2 = 41.926$  &  $P < 0.001$ ).

**Table (5) shows the relationship between the total level of stress management technique skills and the total overall performance level of the head nurses at the follow-up.**

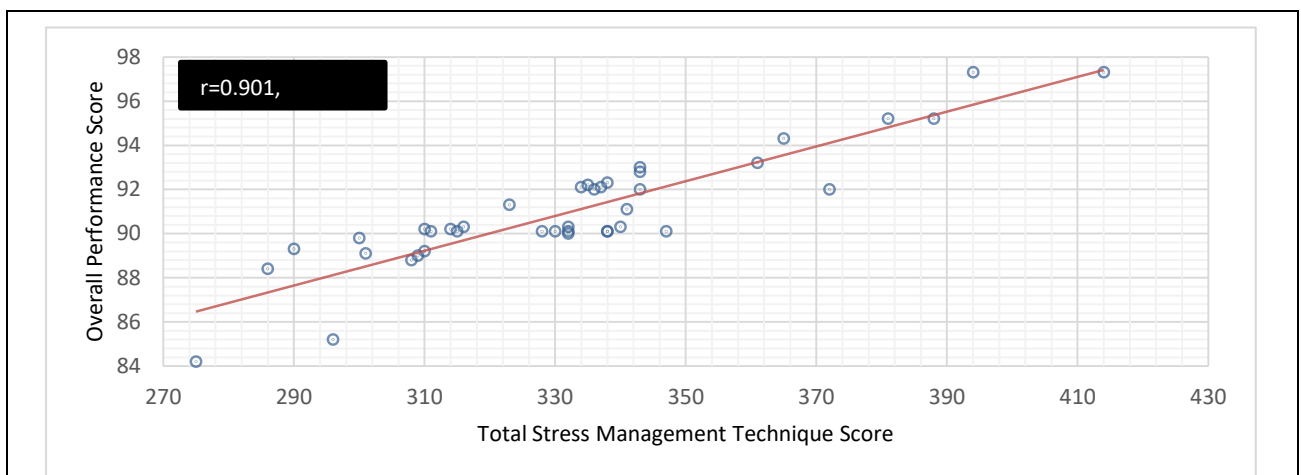
	Total stress management technique level				Chi-Square	
	Low (n=27)		Moderate (n=13)		X <sup>2</sup>	p
	n	%	n	%		
Overall performance level						
Need Improvement (n=4)	4	14.8	0	0.0		
Good (n=30)	23	85.2	7	53.8		
Excellent (n=4)	0	0.0	4	30.8		
Outstanding (n=2)	0	0.0	2	15.4	15.537	0.002

Table 5. Shows the relationship between the total stress management techniques skills level and the overall performance level of the head nurses at follow up. It revealed that there was a statistically significant relation between the total stress management technique level and the overall performance level of the head nurses at follow-up ( $X^2 = 15.537$  &  $P = 0.002$ ).



**Figure 1. Correlation between the total stress management technique score and the overall performance score of the head nurses’ pre-intervention**

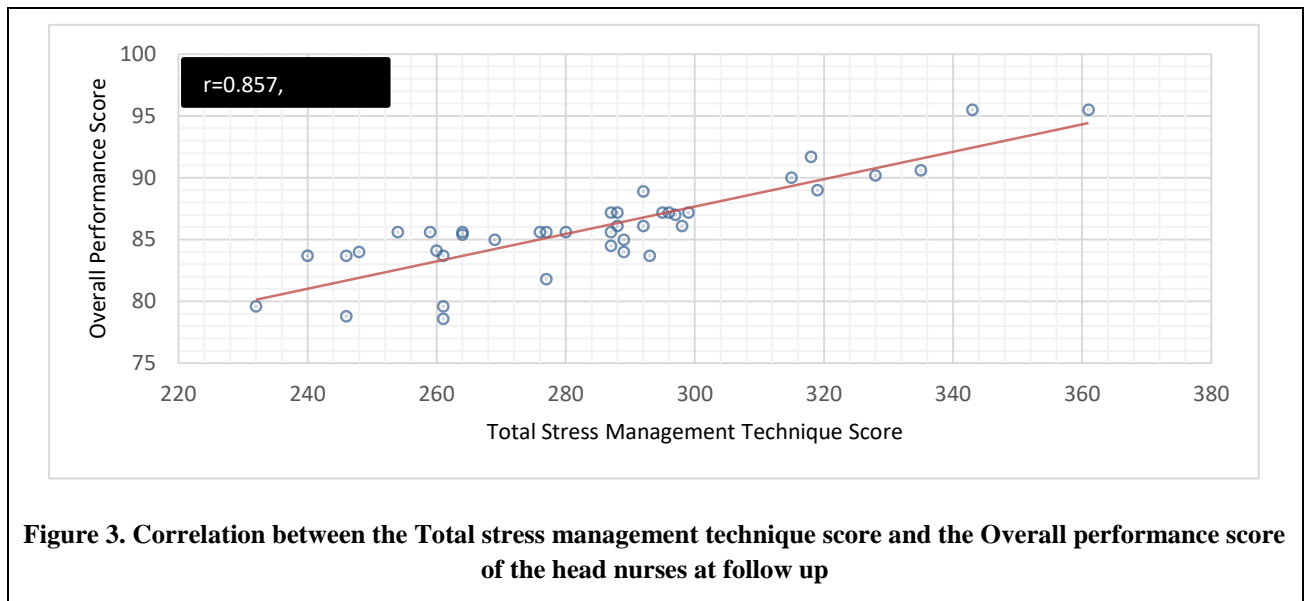
Figure 1. Shows correlation between the total stress management techniques score and the overall performance score of the head nurses pre-intervention. The total stress management techniques score and the overall performance score of the head nurses pre-intervention have a statistically significant positive correlation ( $r = 0.888$ ,  $p < 0.001$ ).



**Figure 2. Correlation between the Total stress management technique score and the Overall performance score of the head nurses’ post-intervention**

Figure 2. shows correlation between the total stress management techniques score and the overall performance score of the head nurses post-intervention. The total stress management techniques score and the overall performance score of the head nurses post-intervention have a statistically significant positive correlation ( $r=0.853$ ,  $p < 0.001$ ).





**Figure 3. Correlation between the Total stress management technique score and the Overall performance score of the head nurses at follow up**

Figure 3: shows correlation between the total stress management techniques score and the overall performance score of the head nurses at follow up. The total stress management techniques score and the overall performance score of the head nurses at follow up have a statistically significant positive correlation ( $r=0.860$ ,  $p < 0.001$ ).

#### IV. DISCUSSION

The findings of the current study revealed that there was statistically significant improvement in the total score of all stress management techniques domains during different phases of the training program. This result might be due to an effect of the training programme which includes a change in stress management knowledge and practice as represented by applying effective problem solving strategies and time management tools in addition to practicing relaxation techniques. As a result of two points, the educational principle about the marked effect of practice on learning and change in behavior, and thus developing new behaviour by head nurses, is expected to have the greatest impact.

This findings agreed with {35} who said that the stress management program is a non-invasive strategy that can be used to help head nurses manage occupational stress in practice by reducing stress levels and improving coping strategies. In addition to {36} found that stress management program is effective in reducing the stress, increasing mindfulness, improving coping strategies for stress, increasing use of self-assured and positive approaches. As well as, this results were supported with {37} who indicated that the stress management program has led to stress reduction and enhanced stress management skills on head nurses. In line with {38}, who discovered a considerable improvement and good influence on the head nurses' levels of knowledge and skills about job stress and its management after implementing the stress management programme.

On the other hand, the finding of the current study differed with, {39} who stated that there was no significant difference between the two study groups (experimental and control group) in relation to the occupational stress degrees after implementing the stress management training

Finding of the present study illustrated the highly positive statistically significant improvement with total score of all head nurses job performance domains, the overall head nurses performance level showed improvement at the three point of evaluation, and it was statistically significant. This may be a result of accumulative effect of applying stress management techniques in post and follow up program respectively, with highly statistically significant effects. This result assured the positive effect of stress management techniques intervention on head nurses job performance.

This finding agreed with {40} found that immediate post-program and three-month follow-up scores of job performance indicators among head nurses were statistically significantly higher than pre-program scores. On the same line agreed with {41} who found that there were statistically significant differences among phases of stress management techniques training program on regarding head nurses job performance. On the other hand the result disagree with {42} who found that the head nurses' performance was not affected after the training program

Finding of the current study illustrated there were statistically significant relation between the total stress management technique level and overall performance level of the head nurses post-intervention and at follow up this may be due to stress management techniques training were given to head nurses to assist in improving their performance, more than reducing the overall stress. This study instructed each head nurse in specific stress management techniques to help manage their stress, assuming part of their stress was work-related. An added benefit was that the head nurses would theoretically be more productive at work and performing well.

This finding agree with {41} who found statistically significant differences among pre- post- and pre- and follow up phases of training program on stress management program for total job performance among head nurses, with higher value for good job performance in post- and follow up program than pre-program

On the other hand the results of disagreed with {43} found that Stress management and job performance had a significant negative relationship. Also, {44} found that there is an inverse relation between stress management and job performance, hence performance is expected to deteriorate as stress levels increase. As a result, head nurses who wish to decrease stress can spend time and engage in undesirable activities.

In addition to, {45} mentioned that there is no relation between stress management and performance. As a result, head nurses are aware that they will be paid for their work. So performance is unaffected by the presence or absence of stress or stress management. Furthermore, {46} indicate that there is no relationship between job stress and how it is managed and job performance.

Finding of the current study revealed that there was a statistically significant positive correlation between total stress management techniques score and the overall performance score of the head nurses pre-intervention, post intervention and at follow up. This could be because the programme had a beneficial impact on head nurses' behaviour by assisting, supporting, inspiring, and motivating them to overcome challenges on a daily basis, efficiently manage time, and learn how to relax in order to reach their job performance objectives.

This findings agreed with {47} found that there was a positive correlation between stress management and performance. They concluded that psychological stress and the ability to cope had a positive effect on performance among head nurses. In addition to, {44} who found that there is a significant positive correlation between stress management training and performance levels among the head nurses.

On the other hand the result disagreed with {48} who found that job stress has a negative influence on head nurse performance, job stress is a mediator in the effect of social undermining on head nurse performance, and job stress and emotional exhaustion have a serial mediation effect on head nurse performance.

## V. CONCLUSION

Based on the findings of this study, it can be concluded that implementing stress management techniques was associated to a significant improvement and positive impact on the head nurses' stress management skills and job performance. Furthermore, there was a statistically significant relation between the level of total stress management techniques skills and the overall performance of the head nurses after the intervention and at the follow-up intervention.

## VI. RECOMMENDATION

**The following recommendation is suggested:**

1. Improve the knowledge and awareness of head nurses about work stress and how to manage it by:

- Encouraging head nurses to attend national and international stress management congresses, seminars, and workshops on a regular basis.
- Providing ongoing and regular job-related educational programs and other improvement activities, like seminars, conferences and workshops, to improve the head nurses' competency level in the application of work stress management and other managerial skills.
- Creating a mechanism for head nurses to be appraised on a regular base to determine strategies for improving their knowledge and practice.

## International Journal of Novel Research in Healthcare and Nursing

Vol. 9, Issue 1, pp: (215-227), Month: January - April 2022, Available at: [www.noveltyjournals.com](http://www.noveltyjournals.com)

2. Incorporate the concept of nursing stress and stress management in nursing faculty and nursing school curriculum.
3. Continuously studying the impact of stress management training programmes on work stress and its management using a large probability sample in various areas to monitor improvements in head nurse performance and points of weakness in order to develop more educational programmes for dealing with work stress in order to improve head nurse performance.
4. Hospital managers might initiate stress management program for all employees, in order to limit the stressful situations, overcome crisis and improve nursing staff performance.
5. Reassure the head nurses to share in decision making, and problem solving, which face them in their work and develop new methods to improve their work performance.
6. Promoting head nurses' attitudes towards delegation of authority to reduce her work overload and better management of her time consequently reduce her work stress.
7. Perform the progressive muscle relaxation, guided imagery and deep breathing in routine behavior every day to reduce stress among head nurses.

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